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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	09/555,010	Confirmation No. 6735
Applicant	:	Y. NUNOGAWA et al	
Filed	:	September 5, 2000	
Title	:	HIGH FREQUENCY POWER AMPLIFYING CIRCUIT, AND MOBILE COMMUNICATION APPARATUS USING IT	
TC/AU	:	2829	
Examiner	:	V.P. Nguyen	
Docket No.	:	ASA-883	
Customer No.:		24956	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO RESTRICTION REQUIREMENT

Sir:

In response to the Restriction Requirement mailed October 29, 2004, Applicants submit that all of the claims correspond to a single disclosed species and that the Restriction Requirement should be withdrawn. Nevertheless, as required, Applicants elect species A, as defined by the Examiner, including claims 16-43 and 46-49.

Applicants wish to thank the Examiner for conducting an interview with the undersigned on November 4, 2004 and on February 23, 2005. In the interview of February 23, 2005, it was agreed that all of the claims correspond to a single species. In particular, all the claims read on the species shown in Figs. 11 and 12.

Pursuant to the Examiner's request, Applicants provide the following discussion of support for the various claim limitations as discussed in the Interview. The Examiner did not request any written comments regarding claims 16-43 or 46-49. It should be understood that the following discussion is undertaken by way of example only and should not be used to unduly limit the scope of any of the claims. As always, the claims should still be given their broadest reasonable interpretation.

With respect to claim 44, the radio frequency power amplifier can be said to correspond to transistor T1 in Fig. 11. The first transistor can be said to correspond to transistor T2. The bias circuitry can be said to correspond to the combination of capacitor C2, resistor Rs1 and the amplifier to which they are both coupled. With respect to the bias circuitry recited in claim 44, it is noted that in a Second Supplemental Claim Support Chart (Appendix A) for claim 44 accompanying this response, support is identified as: amplifier, capacitor C2 and resistor Rs1 in Fig. 11; resistor Rs1 in Fig. 7 and reference numeral 5 in Fig. 1.

With respect to claim 45, since the amplifier circuitry can be said to correspond to transistor T1, it necessarily follows that the power amplifier circuitry is implemented using transistor circuitry.

With respect to claim 50, the RF power amplifier having an amplifier transistor can be said to correspond to transistor T1 in Fig. 11. The sampling amplifier having a sampling transistor can be said to correspond to transistor T2. The current sensing

network can be said to correspond to the combination of capacitor C2, resistor Rs1 and the amplifier to which they are coupled.

The resistor of the current sensing network in claim 51 can be said to correspond to Rs1 in Fig. 11.

The capacitor recited in claim 52 can be said to correspond to capacitor C2 in Fig. 11.

The bias network recited in claim 53 can be said to include the amplifier to which the power control signal and the sense output are provided as shown in Fig. 12. In this regard, Applicants wish to point out that the bias network could also be realized by the power control amplifiers (8-1) -(8-N) in Fig. 1. These power control amplifiers receive the output signals from power sense elements that are combined by a detected-current combining circuit which outputs a power sense output. In a supplemental claim support chart filed March 3, 2004, the gain control circuit 4 of Fig.1 was mentioned as support for the bias network.

The first bias resistor of claim 54 can be said to be R1 in Fig. 11. In Fig. 11, it should be understood that the current sensing network outputs a signal that is supplied through some bias circuitry to one end of resistor R1 although not explicitly shown in Fig. 11. Such circuitry is shown in other figures (for example Figs. 1 and 12).

The second resistor in claim 55 can be said to read on R1 of Fig. 11. R1 can be realized by as a set of resistors R1 and R2 as shown in Fig. 2.

Finally, the capacitor recited in claim 56 can be said to correspond to capacitor C2 in Fig. 11.

In light of the discussion above, it is submitted that all of the currently pending claims read upon a single species and therefore the restriction requirement should be withdrawn. Furthermore, in the Interview Summary, the Examiner requested explanation of how claim 44 reads on Fig. 12. It is believed that this is a typographical error and that the Examiner was actually referring to the bias network recited in claim 53. Nonetheless, the support for all of the claims has been set forth above. The Examiner is hereby invited to contact the undersigned with any questions.

Conclusion

In view of the foregoing, a declaration of the requested Interference is respectfully requested.

Respectfully submitted,

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APPENDIX A

SECOND SUPPLEMENTAL CLAIM SUPPORT CHART

CLAIM 44	CORRESPONDING SUPPORT IN U.S. SERIAL NO.09/555,010
44. Amplifier circuitry comprising:	(Fig. 1; pg 1, lines 2-8; and pg. 2, lines 9-14)
a) a radio frequency power amplifier for amplifying a radio frequency input signal and having: i) a radio frequency amplifier input for receiving the radio frequency input signal, ii) a bias input for receiving a bias signal for biasing the radio frequency power amplifier, and iii) a power amplifier output providing an amplified radio frequency signal;	T1 (Figs. 7 and 11; pg. 6, lines 10-12, pg. 20, lines 6-21)
b) a first transistor circuit having: i) a first input for receiving the radio frequency input signal, ii) a first bias input for receiving the bias signal, and iii) a first output providing a first output signal having a bias component and a radio frequency component proportionally smaller than the amplified radio frequency signal; and	T2 (Figs. 7 and 11; and spec. pg. 2, line 23 - pg. 3, line 7; pg. 6, lines 16-19; pg. 10, lines 11-14; pg. 16, line 24 to pg. 17, line 13; pg. 20, lines 6-21; pg. 22, line 28 to pg. 23 line 12; pg. 25, lines 8-14; and original claim 1)
c) bias circuitry adapted to provide the bias signal as a function of the first output, wherein the bias circuitry provides the bias signal to compensate for output power of the amplified radio frequency signal.	amplifier, C2 and Rs1 (Fig. 11) Rs (Fig. 7) Numeral(5) (Fig. 1) (pg. 6, lines 4-7 and 23-27; and pg. 20, lines 6-21)